

OBESITY PLAYBOOK

AN EDUCATIONAL RESOURCE BOOK
FOR CONGRESSIONAL STAFF
ON OBESITY AND HEALTH

MARCH 2021

ENDOCRINE
SOCIETY 

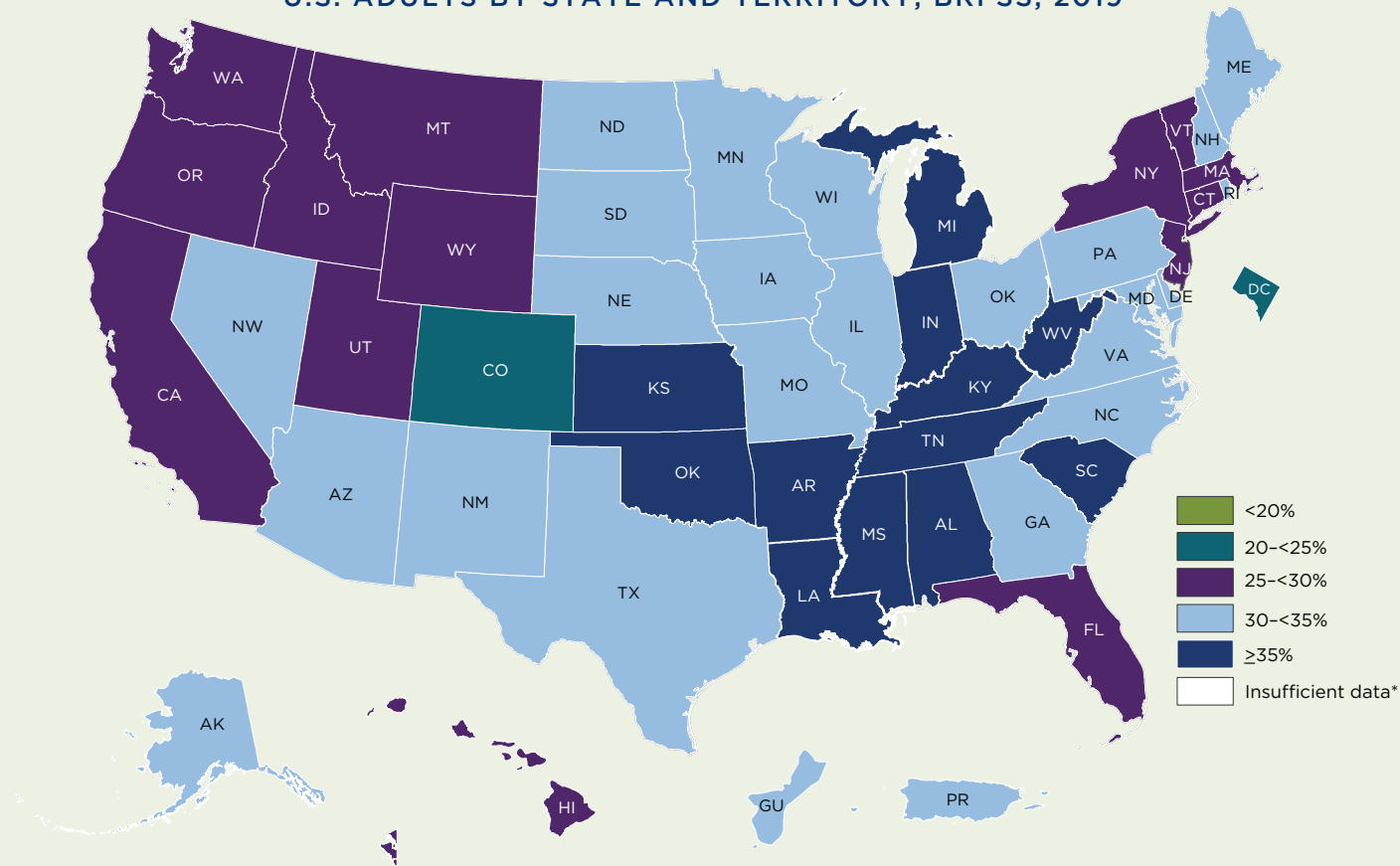
Table of Contents

Obesity Facts and Figures	3
Part One: Background	4
<u>What Is Obesity?</u>	4
<u>Obesity Prevalence</u>	4
<u>Cost Burden</u>	5
<u>Obesity and Chronic Disease</u>	5
<u>Obesity and COVID-19</u>	6
Part Two: State of the Science	7
<u>Scientific Statements</u>	7
<u>Journal Articles</u>	7
Part Three: Policy Options	8
<u>Child Nutrition and Food Security</u>	8
<u>Federal Nutrition Labeling Rules</u>	9
<u>Recent Legislation Introduced (Action Pending)</u>	9
Part Four: Federal Agencies and Funding	11
<u>National Institutes of Health (NIH)</u>	11
<u>Centers for Disease Control (CDC)</u>	11
<u>Department of Health and Human Services (HHS)</u>	11
Part Five: Contacts	13
<u>Obesity Medical and Scientific Experts (Endocrine Society Members)</u>	13
<u>Other Obesity Experts (Not Members of Endocrine Society)</u>	14
<u>Obesity Related Coalitions</u>	14

OBESITY

FACTS AND FIGURES

PREVALENCE OF SELF-REPORTED OBESITY AMONG U.S. ADULTS BY STATE AND TERRITORY, BRFSS, 2019¹

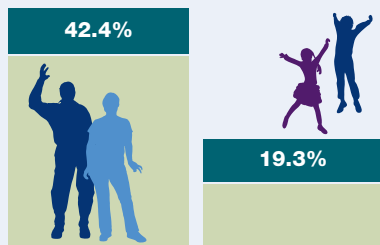


Source: Behavioral Risk Factor Surveillance System

*Sample size <50, the relative standard error (dividing the standard error by the prevalence) ≥30%, or no data in a specific year.

PREVALENCE OF OBESITY

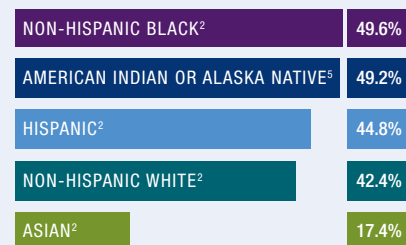
IN THE US IN 2017-2018



MEDICAL CARE COSTS⁴

IN 2016,
THE AGGREGATE
NATIONAL COST
OF OBESITY WAS
\$260.6 BILLION

BY RACE AND ETHNICITY



¹ <https://www.cdc.gov/obesity/data/prevalence-maps.html>

² <https://www.cdc.gov/nchs/data/databriefs/db360-h.pdf>

³ <https://www.cdc.gov/nchs/data/hestat/obesity-child-17-18/overweight-obesity-child-H.pdf>

⁴ <https://www.jmcp.org/doi/pdf/10.18553/jmcp.2021.20410>

⁵ https://ftp.cdc.gov/pub/Health_Statistics/NCHS/NHIS/SHS/2017_SHS_Table_A-15.pdf

Part One: Background

What Is Obesity?

Obesity is a *chronic progressive disease* characterized by an individual having an excess of body fat. People who have obesity are at an increased risk for many serious diseases and health conditions. Obesity is also associated with the leading causes of death in the United States. Obesity is not just a simple problem of willpower or self-control, but rather it is a result of multiple environmental and genetic factors. Understanding obesity as a disease is critical to its management at both the individual and societal levels.

Obesity is diagnosed using a number called the body mass index (BMI). A person with a BMI over 30 kg/m² is considered a person with obesity.

Obesity Prevalence

Obesity is extremely common in the United States. In the past two decades, obesity prevalence among adults has increased from 30.5% in 1999–2000 to 42.5% in 2017–2018¹.

Obesity also affects some groups more than others. There are notable differences in obesity prevalence by race and ethnicity. Non-Hispanic Black adults (49.6%) had the highest age-adjusted prevalence of obesity, followed by Hispanic adults (44.8%), non-Hispanic White adults (42.2%) and non-Hispanic Asian adults (17.4%)². Prevalence also differs by income and education level. Men and women with less education had higher rates of obesity compared to men and women with college degrees³.

Additional Resources:

- [Adult Obesity Maps](#) – The CDC has released 2019 Adult Obesity Prevalence Maps for 49 states, the District of Columbia, and 2 US territories. The maps show self-reported adult obesity prevalence by race, ethnicity, and location. The data comes from the Behavioral Risk Factor Surveillance System.
- [National Center for Health Statistic data brief](#) – Published in 2020, this data brief from the CDC provides the most recent national data for 2017–2018 on obesity and severe obesity prevalence among adults by sex, age, and race and Hispanic origin. Trends from 1999–2000 through 2017–2018 for adults aged 20 and over are also presented.

¹ <https://www.cdc.gov/nchs/data/databriefs/db360-h.pdf>

² <https://www.cdc.gov/nchs/data/databriefs/db360-h.pdf>

³ <https://www.cdc.gov/mmwr/volumes/66/wr/pdfs/mm6650a1-H.pdf>

- [Nutrition, Physical Activity, and Obesity: Data, Maps, and Trends](#) – This interactive database provides national and state-level data about the health status and behaviors of Americans as well as environmental or policy supports. Categories include breastfeeding, fruits and vegetables, physical activity, sugar drinks, television watching, and obesity/weight. Visitors can examine data by demographics such as gender and race/ethnicity. The data come from multiple sources.

Cost Burden

The economic costs of obesity are high, including both direct and indirect costs. Direct medical costs may include preventive, diagnostic, and treatment services while indirect costs relate to sickness and death and include lost productivity.

According to the Journal of Managed Care and Specialty Pharmacy, adults with obesity in the United States compared with those with normal weight experienced higher annual medical care costs by \$2,505 or 100%⁴. Authors of this study also found that in 2016, the aggregate medical cost due to obesity among adults in the United States was \$260.6 billion⁵.

Additional Resources:

- [Direct medical costs of obesity in the United States and the most populous states](#) – Cited above, this study showed that the effect of obesity is greater than suggested by previous studies. Much of the aggregate national cost of obesity- \$260.6 billion- represents external costs, providing a rationale for interventions to prevent and reduce obesity.
- [Adult Obesity Causes & Consequences](#) – This CDC webpage discusses some of the economic and societal costs of obesity, including the impact obesity has on armed forces recruitment.

Obesity and Chronic Disease

Obesity is associated with a wide range of chronic diseases and health conditions, including high blood pressure, type 2 diabetes, heart disease, high cholesterol, and more. These diseases, combined with obesity, can lead people to have poor health,

⁴ <https://www.jmcp.org/doi/pdf/10.18553/jmcp.2021.20410>

⁵ <https://www.jmcp.org/doi/pdf/10.18553/jmcp.2021.20410>

poor quality of life, disability, and even early death. However, these complications and conditions can be prevented or improved by weight loss.

Additional Resources:

- [The Health Effects of Overweight & Obesity](#) – This CDC webpage lists some of the common health conditions associated with obesity.
- [Health Risks of Being Overweight](#) - This webpage from the NIDDK discusses the links between excess weight and many health conditions.
- [The Impact of Obesity on Body and Health](#) – This webpage from the American Society for Metabolic and Bariatric Surgery discusses the impact that obesity can have on the body.
- [Quantifying the Sex-Race/Ethnicity-Specific Burden of Obesity on Incident Diabetes Mellitus in the United States, 2001 to 2016: MESA and NHANES](#) - Study found that the frequency of obesity was increasing among adults and was consistently higher among those with Type 2 diabetes. Obesity was linked to 30%-53% of new Type 2 diabetes diagnoses each year over the past two decades.

Obesity and COVID-19

Obesity is linked to impaired immune function, thus making the body more vulnerable to infection. Individuals with obesity are at a higher risk for severe illness and hospitalization than those at a normal weight. Researchers continue to study the relationship between obesity and COVID-19.

Additional Resources:

- [Obesity, Race/Ethnicity, and COVID-19](#) – This CDC webpage discusses the relationship between obesity and COVID-19. It also links to other resources from the CDC about obesity and COVID-19.
- [Obesity in patients with COVID-19: a systematic review and meta-analysis](#) – This study finds that obesity increases risk for hospitalization, ICU admission, IMV requirement and death among patients with COVID-19. Further, excessive visceral adiposity appears to be associated with severe COVID-19 outcomes. These findings emphasize the need for effective actions by individuals, the public and governments to increase awareness of the risks resulting from obesity and how these are heightened in the current global pandemic.

Part Two: State of the Science

This section contains peer reviewed journal articles intended for a scientific audience. These articles provide information about the scientific basis of obesity, discuss how this knowledge can be applied in clinical practice, and identify areas that require additional research.

Scientific Statements from the Endocrine Society

[The Science of Obesity Management: An Endocrine Society Scientific Statement](#): This scientific statement documents the rising prevalence of obesity in both men and women in the United States, its hazardous health implications, treatment options, and further areas for research.

[Obesity Pathogenesis: An Endocrine Society Scientific Statement](#): This scientific statement seeks to elucidate obesity pathogenesis to better inform treatment, public policy, advocacy, and awareness of obesity in ways that ultimately diminish its public health and economic consequences.

Endocrine Society Journal Articles

Each year the Endocrine Society curates a special collection of journal articles focused on obesity.

[2021 JCEM Obesity Thematic Issue](#)

- This is a collection of articles published from 2019 to 2021. Topics include the relationship between obesity, diabetes, and cancer, liver damage in children with obesity, the association between body mass index and stroke risk in patients with type 2 diabetes, and more.

[2019 JCEM Obesity Thematic Issue](#)

- This is a collection of articles published in 2019. Topics include the relationship between climate and the obesity epidemic, mindfulness and healthier eating habits, and more.

[2018 JCEM Obesity Thematic Issue](#)

- This is a collection of articles published in 2018. Topics include the role of the gut microbiome in the development of obesity, the role of leptin-dopamine neuronal signaling, testosterone treatment for men with obesity, and more.

Part Three: Policy Options

This section provides brief overviews of current laws and programs funded and reauthorized by Congress pertaining to obesity. It also includes recent legislation addressing obesity. This overview is meant to provide a synopsis of some of the key policy areas pertaining to obesity. This is not meant to be a conclusive list of every policy area on this issue. If you have any questions about this section, please contact Rob Goldsmith on the Endocrine Society staff. Rob's contact information is listed under Section Five of the Playbook.

Child Nutrition and Food Security

- The Child Nutrition Programs are a group of different programs focused on nutrition for children and adults reauthorized by Congress. The programs include the National School Lunch Program, the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), and the School Breakfast Program. Many of the Child Nutrition Programs are funded through annual appropriations. The most recent reauthorization was Healthy, Hunger-Free Kids Act (HHFKA) of 2010 ([P.L. 111-296](#)). The HHFKA required the USDA to create new nutrition standards for school meals utilizing the latest science on nutrition. It also created a Community Eligibility Provision (CEP) to provide free meals to students in eligible schools. Issues for next reauthorization: updated nutrition standards for school meals, implementation of CEP, updates to Fresh Fruit and Vegetable Program.

For more information: [CRS Report, Child Nutrition Reauthorization Overview](#), [CRS Report: Child Nutrition Programs: Issues in 115th Congress](#).

- The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) is a food assistance program that provides nutritious food and nutrition education to low-income women, infants and children. WIC is funded through discretionary spending. WIC is usually included as part of the Child Nutrition Programs reauthorization.

For more information: [CRS Report, A Primer on WIC: The Special Supplemental Nutrition Program for Women, Infants, and Children](#)

- The Supplemental Nutrition Assistance Program (SNAP) provides assistance to low-income households to ensure they buy a nutritional low-cost food. SNAP is included in the reauthorization of the Farm Bill.

For more information: [CRS Report, Supplemental Nutrition Assistance Program \(SNAP\): A Primer on Eligibility and Benefits](#)

Federal Nutrition Labeling Rules

- The Affordable Care Act (ACA) ([P.L. 111-148](#)) includes a provision which requires menu labeling in some restaurants and other retail food establishments. It also required calorie labeling for some items sold in vending machines. In 2014, the FDA finalized two rules that established calorie labeling requirements for food sold in vending machines and some restaurants. However, the compliance requirements pertaining to these rules were delayed for many years. In April 2020, the FDA suspended the federal menu labeling requirements due to the COVID-19 pandemic.

For more information:

- [CRS Report: Nutrition Labeling of Restaurant Menu and Vending Machine Items](#)
- [FDA Guidance Document, Temporary Nutrition Labeling Policy](#)

Recent Legislation Introduced (Action Pending)

- ***Treat and Reduce Obesity Act***. This legislation would expand access to intensive behavioral therapy (IBT) for obesity. IBT includes dietary/nutrition assessments, intensive behavioral counseling that promotes weight loss and measurement of Body Mass Index. Medicare will only cover IBT when these services are provided by a primary care provider in the primary care setting. The Treat and Reduce Obesity Act would expand Medicare coverage of IBT for obesity allowing additional qualified healthcare providers to offer IBT services. The bill would also allow for coverage of FDA-approved weight loss medications that can be offered in conjunction with IBT.

Bill Sponsors: This legislation was introduced by Representatives Ron Kind and Tom Reed in the House, and Senators Tom Carper and Bill Cassidy in the Senate. For more information about this legislation, you can contact Alex Eveland in Rep. Kind's office or Logan Hoover in Rep. Reed's office. On the Senate side, you can contact Anthony Theissen in Senator Carper's office or Mary Moody in Senator Cassidy's office.

For more information: [TROA House Bill](#); [TROA Senate Bill](#); [Academy of Nutrition and Dietetics Issue Brief: TROA](#), [Obesity Care Action Network TROA Sign-on Letter](#), [Senator Tom Carper Press Release](#).

- **Medical Nutrition Therapy Act.** Medical Nutrition Therapy (MNT) is an evidence-based nutrition therapy provided by Registered Dietitians which can include nutrition assessment and intervention. This legislation would provide Medicare Part B coverage of outpatient MNT for a number of uncovered conditions and diseases such as prediabetes, obesity, and cancer. Currently, Medicare Part B only covers outpatient MNT for people with diabetes, renal disease and those in post-kidney transplant.

Bill Sponsors: In the 116th Congress, this legislation was introduced by Representative Eliot Engel in the House, and Senators Susan Collins and Gary Peters in the Senate. The bill is expected to be re-introduced soon. For more information about this legislation, you can contact Maria Olson in Senator Collins office and Devin Parsons in Senator Peters office.

For more information: [Medical Nutrition Therapy Act House Bill](#); [Medical Nutrition Therapy Act Senate Bill](#); [Endocrine Society MNT Act Support Letter](#); [Senator Susan Collins Press Release](#), [Academy of Nutrition and Dietetics Issue Brief](#)

Part Four: Federal Agencies and Funding

National Institutes of Health (NIH)

The NIH Obesity Research Task Force: this task force was established to accelerate progress in obesity research and promotes collaboration and coordination across the NIH. The task force is made up of participants across the NIH's Institutes and Centers and is co-chaired by the Director of the National Institute of Diabetes and Digestive and Kidney Diseases, Dr. Griffin P. Rodgers. For more information: [The NIH Obesity Research Task Force Webpage](#)

Strategic Plan For NIH Obesity Research: this plan serves as a guide to accelerate a broad spectrum of research toward developing new and more effective approaches to address the tremendous burden of obesity, so that people can look forward to healthier lives. The plan, which was originally published in 2011, was reaffirmed in 2018-2019 to still reflecting the current research landscape and guide obesity research. For more information: [Strategic Plan for NIH Obesity Research Webpage](#)

Office of Obesity Research, National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK): this office is responsible for coordination of obesity-related research across NIDDK and carrying out the functions of the NIDDK Obesity Research Working Group. For more information: [NIDDK Office of Obesity Research Webpage](#)

Centers for Disease Control (CDC)

The CDC's Division of Nutrition, Physical Activity, and Obesity (DNPAO) aims to improve the overall health and well-being of all people, with a focus on promoting health equity among groups experiencing more risk factors for chronic diseases. DNPAO provides grant funds to states and local governments to address obesity in their local communities. For more information: [CDC Division of Nutrition, Physical Activity, and Obesity Website](#)

Department of Health and Human Services (HHS)

Healthy People 2030: Every ten years the Department of Health and Human Services (HHS) releases a ten-year plan for addressing the nation's most critical public health priorities and challenges. Last August, HHS released Healthy People 2030 which an array of objectives to improve the health and well-being of the nation. This effort is led by the HHS Office of Disease Prevention and Health Promotion,

in partnership with the National Center for Health Statistics at the Centers for Disease Control and Prevention. For more information: [Healthy People 2030 Website](#)

Part Five: Contacts

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Obesity Related Coalitions

The Strategies to Overcome and Prevent (STOP) Obesity Alliance is a coalition of business, consumer, advocacy, and health organizations dedicated to reversing the obesity epidemic in the United States. For more information: [STOP Obesity Alliance Website](#)

- Weight Can't Wait Guide: The Endocrine Society partnered with the STOP Obesity Alliance to issue [Weight Can't Wait: A Guide for the Management of Obesity in the Primary Care Setting](#). This guide fills the gap in obesity management training and

provides healthcare professionals with a short, accessible, practical, and informative guide to effective obesity care.

The Obesity Care Advocacy Network (OCAN) is a coalition of diverse organizations dedicated to addressing obesity issues. OCAN's mission is to unite and align key obesity stakeholders and the larger obesity community around key obesity-related education, policy and legislative efforts in order to elevate obesity on the national agenda. For more information: [OCAN Website](#)

The CDC Coalition is a nonpartisan coalition of organizations committed to strengthening our nation's public health infrastructure and prevention programs. Its mission is to ensure that health promotion and disease prevention are given top priority in federal funding, to support a funding level for CDC that enables it to carry out its prevention mission and to assure an adequate translation of new research into effective state and local programs. Coalition member groups represent millions of public health workers, researchers, clinicians, educators and citizens served by CDC programs. For more information: [CDC Coalition Website](#)